



BOLLFILTER
Protection Systems

Filter Candle Guide 2019

Caring for your Filter Candles
and Elements



**Maximise the efficiency of your filter and
prolong the life of your candles and elements
with careful handling and cleaning**

Great filters by great people. Great people buy great filters



The Filter Candle Care Team

Caring for your Filter Candles and Elements

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4 Introduction to Candle Care

If handled and cleaned correctly, Bollfilter candles have a long trouble-free life. To help engineering and maintenance staff take care of their Bollfilters correctly, we've prepared this simple booklet, which covers how to identify spare parts and clean the filter candles.

Identifying Essential Information

To help us help you get the correct information quickly. It is essential we can identify the filter. Providing us with the information below will help ensure a speedy response with the right parts or information.

Nameplate on Boll-Filters

Each BOLLFILTER is equipped with a nameplate

important →
very important →

(when ordering spare parts,
service, documents etc.)

BOLL & KIRCH Filterbau GmbH		D-50170 Kerpen-Sindorf	
Typ Type	6.61 DN 200		
Fabr. Nr. Fabr. No.	3872198/2		
Baujahr Year of manufacturing	2008	F	10 µm
Filterraum Filter room		Heizraum Heating room	
max. zul. Druck max. allowable pressure	10 bar		bar
min./max. zul. Temperatur min./max. all. temperature	100 °C		°C
Volumen	150 l		l
CE		20 6 2008	



Janine Harris

Head of Spares Department, has been at BOLLFILTER UK for 26 years. She started as an office junior, progressing onto becoming secretary to the then Managing Director, John Dow, which is when she pretty much learnt her trade, eventually going on to manage the Spares Department. Today, she is now permanently on the road, focusing on visiting customers, contract proposals, technical enquiries and new sales growth.

Contact: 01621 862183
janine@bollfilter.co.uk



Laura Morgan

Deputy Spares Manager, has worked for BOLLFILTER UK for 12 years since leaving school. She is responsible for sending quotations to customers, processing orders and organising deliveries. She is often complimented by customers for her efficiency and outstanding customer service.

Contact: 01621 862184
laura@bollfilter.co.uk



Abbe Coulton

Internal Sales Manager, joined BOLLFILTER UK in March 2019. She previously worked in the City of London for various American banks focusing on client relationship management. After this she started a business selling printer cartridges. Abbe oversees all aspects of running the Spares Department, ensuring customers receive their quotes promptly and that their orders are delivered as soon as possible.

Contact: 01621 862188
abigail@bollfilter.co.uk



Alex Reade

The Warehouse Manager, he started working at BOLLFILTER UK in November 2018. He runs the company warehouse, despatching and receiving goods. Alex comes from a logistics background, managing goods at freight companies. He also worked at an auction house.

Contact: 01621 862180
alexr@bollfilter.co.uk

6 Meet the Service Team



Michael Chadwick

The Service Manager and has been with the company since November 2004. He is the main contact for service enquiries, quotations and technical information. He organises his team with planned service work across a variety of industries worldwide that include shipping, steel works and water treatment.

Contact: 01621 862187
michael@bollfilter.co.uk



Liam Fitzpatrick

Liam Fitzpatrick, is the Senior Service Engineer and has been with the company since July 2009. He carries out planned service work in numerous industry fields worldwide; these include shipping, steel works and water treatment.

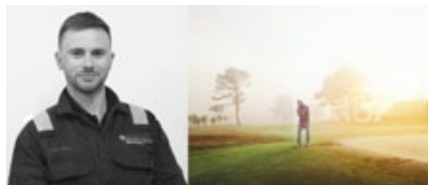
Contact: 01621 731994
liam@bollfilter.co.uk



Alex Wood

Alex Wood, joined the Bollfilter UK team in September 2013. Alex is a Service Engineer. He carries out planned service work in numerous industry fields worldwide; these include shipping, steel works and water treatment.

Contact: 01621 731991
alex@bollfilter.co.uk



Chris Ludlow

Chris Ludlow, joined the Bollfilter UK team in February 2018. Chris started with a six month service engineer training period where he undertook both on the job training and official training at our head office in Germany. He is now fully trained and attends service work all over the world.

Contact: 01621 862180
chris@bollfilter.co.uk



Basket element (1) The basket element is suitable for coarse filtration or for minor contamination. The dirt collects in a basket-shaped filter insert and can be easily removed for cleaning.

Ring filter element (2) The ring filter element is similarly constructed to the basket element, but has an additional concentric mesh cylinder, increasing the filter area by about 30%

Multi-mantle element (3) The multi-mantle element insert consists of several cylindrical filter mantles. These provide a large filter surface for only a small space requirement and permits the employment of fine-meshed cloths. Filtration takes place from the outside in.

Star-pleated element (4) The star-pleated element has a large filter surface yet a small diameter due to the pleating of the filter element. This makes long cleaning intervals possible and the use of fine meshes with low pressure losses.

Filter candle insert (5) This insert contains several mesh candle elements of the same size and mesh connected in parallel. This gives a large filter surface with a very compact design. The filter candles are outstanding for their particularly high resistance to differential pressure.

Filter candle insert for backflushing filters (6) As in the ordinary filter candle insert, several filter candles are screwed into a single candle holder. The holder is fixed to the filter housing and remains there during backflushing in the filter chamber.

Filter cartridge (7) The filter cartridge consists of non-woven pleated plastic, glass fibre or paper element. It is capable of filtering very fine dirt particles.

8 Candle Elements for Automatic Filters



Candle Elements for Automatic Filters

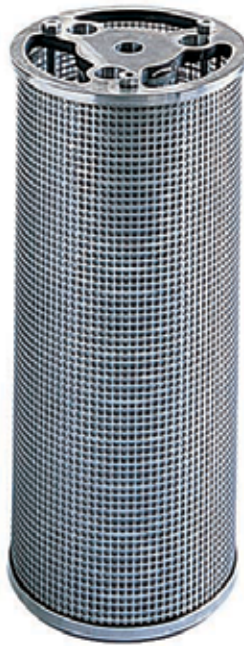
The filter element is the main component of every filter. It essentially consists of a supporting body and the filter media which is fitted into it. Various designs provide differing sized filtration surfaces. The required degree of filtration and cleaning can be achieved for every medium with the ideal combination of core components.



Basket element

The basket element is suitable for coarse filtration or for minor contamination. The dirt collects in a basket-shaped filter insert and can be easily removed for cleaning.

10 Ring Filter Element



Ring filter element

The ring filter element is similarly constructed to the basket element, but has an additional concentric mesh cylinder, increasing the filter area by about 30%.



Multi-mantle element

The multi-mantle element insert consists of several cylindrical filter mantles. These provide a large filter surface for only a small space requirement and permits the employment of fine-meshed cloths. Filtration takes place from the outside in.

12 Star Pleated Element



Star-pleated element

The star-pleated element has a large filter surface yet a small diameter due to the pleating of the filter element. This makes long cleaning intervals possible and the use of fine meshes with low pressure losses.



Disposable elements

The filter cartridge consists of non-woven pleated plastic, glass fibre or paper element. It is capable of filtering very fine dirt particles.

14 Particle / Coalescence Element



Particle / coalescence element

The high-quality, extremely durable particle and coalescence elements are used for gas filtration and coalescence separation in chemical, petrochemical plant, the offshore sector and power stations.



Filter candle element

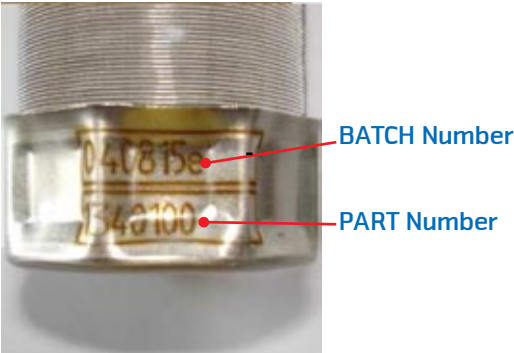
This insert contains several mesh candle elements of the same size and mesh connected in parallel. This gives a large filter surface with a very compact design. The filter candles are outstanding for their particularly high resistance to differential pressure.

16 Filter Element Marking

BOLLFILTER Paper Cartridge Features and Markings



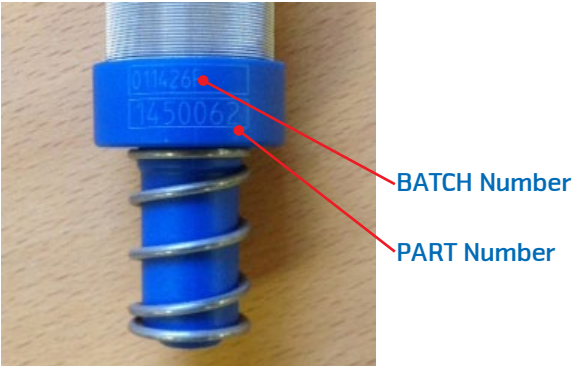
BOLLFILTER Candle Features and Markings



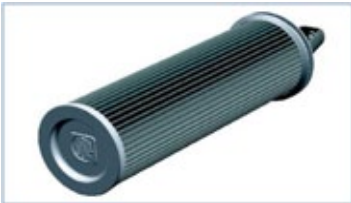
BOLL Trademark



Spring Loaded Candle markings



Each element of a BOLLFILTER is marked with the BOLL trademark



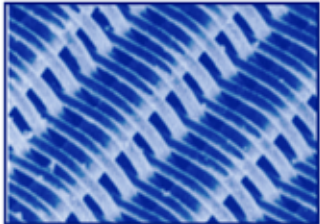
BOLLFILTER Elements / Marking



A 6-digit code number stamped on the element along with the BOLL trademark guarantee 100% 'Bollfilter Genuine Parts' quality.

First 4 digits: month and year of manufacture. The last 2 digits are the code number of the filter mesh.

Stamping "15" means mesh 208/26: 0.048mm mesh size.

Webart / Type of weave / Genre	Sondertresse** / special twist** / treillis spécial**	
Version / Version / Version	15	
Gewebe-Nr. / Mesh-No. / Numéro du treillis	208/26	
Abbildung Maßeinheit / Picture scale / Image échelle	30:1	
Maschenweite (mm) (Kugeldurchgang) / Mesh size (mm) (sphere passing mesh) / Finesse (mm) (grain sphérique)	0,048	
Nominelle Filterfeinheit (µm)* / Nominal grade of filtration (µm)* / Finesse de filtration nominelle (µm)*	30	
Freier Durchlass (%) / Passage area (%) / Passage libre (%)	44	

18 Identifying Filter Mesh Type on Filter Candles

6-digit code number stamped on the element along with the BOLL trademark guarantee 100% 'Bollfilter Genuine Parts' quality.

First 4 digits: month and year of manufacture. The last 2 digits are the code number of the filter mesh.

Stamping "19" means mesh 294/31: 0.034mm mesh size.

Sondertresse** / special twist** / treillis spécial**	Webart / Type of weave / Genre
19	Version / Version / Version
294/31	Gewebe-Nr. / Mesh-No. / Numéro du treillis
30:1	Abbildung Maßeinheit / Picture scale / Image échelle
0,034	Maschenweite (mm) (Kugeldurchgang) / Mesh size (mm) (sphere passing mesh) / Finesse (mm) (grain sphérique)
20	Nominelle Filterfeinheit (µm)* / Nominal grade of filtration (µm)* / Finesse de filtration nominelle (µm)*
44	Freier Durchlass (%) / Passage area (%) / Passage libre (%)

BOLLFILTER Multi mantle Element markings





Available as complete unit or individual parts



20 Controllers, Flow Gauges, Valves & Switches



Control valves

Type 2300 Control Panel

New panel Type 2300 now available
This will slowly phase out the 2200

**How to programme the 2200/2300
video:**

<https://www.youtube.com/watch?v=f0J-UsscEPg>

For further details please contact us

Telephone: 01621 862180

email: spares3@bollfilter.co.uk

Bollfilter UK Filter Candle Guide





Differential Pressure Indicator (DPI) opened up to show the component parts



Filter outlet
"clean side"

Filter inlet
"dirty side"



How to overhaul this DPI

video:

<https://www.youtube.com/watch?v=KePFip9GJuo>

22 Genuine replacement paper filters



Disposable
Cartridges

P451 Filters



5PS50 Filters



O ring set



Vent set seals



Diaphragm for DPI

24 The Essential Toolkit



Candle Removal Key



Motor Hand Crank



Control Panel Key

Boll 5.04 Cleaning Unit 25

To properly clean your elements use this system

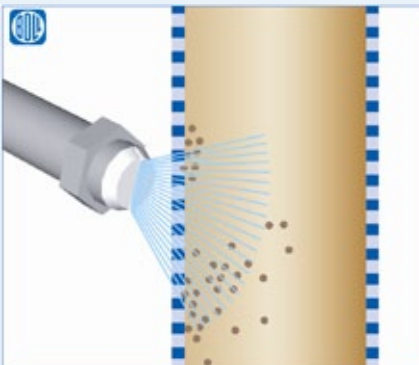


To efficiently regenerate filter elements that have become ingrained with contaminants, and secure full functionality, it is recommended to manually clean the filter mesh from time to time.

Optimum results are achieved by using the BOLL high-pressure cleaning unit type 5.04 in combination with the special cleaning fluid **BOLL CLEAN 2000**. The unit is suitable for both the cleaning of individual filter elements and for complete filter inserts. Moreover, it can be used for the cleaning of other small parts.

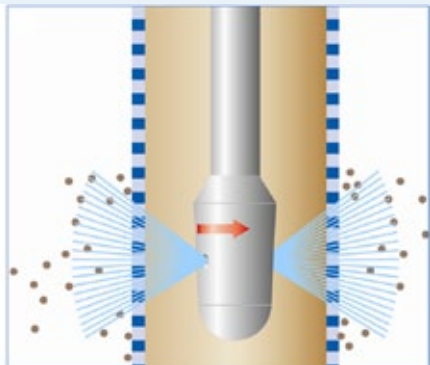
Left Lance 5.02

For most general cleaning applications



Right Lance 5.01

With rotary nozzle, particularly suitable for cleaning screw-in and plug-in candles with heavy contamination



26 Boll 5.04 Cleaning Unit



Cleaning of Filter Elements

Boll & Kirch Cleaning Lances

Using the Boll and Kirch cleaning lances in combination with a high pressure water jet gives the best results in cleaning efficiency



Ultrasonic cleaning is the simple, clean and effective method



Fine cleaning method for contaminated filter elements with sieve meshes. Highly energetic liquid jets remove virtually all ingrained dirt particles from the mesh of the filter screen. Ultrasonic cleaning is the simple, clean and effective method to restore filter meshes to their original filtration level, open condition.

The cleaning process is easy and trouble free. Ultrasonic waves emitted from two sides remove the dirt particles from the mesh of the filter screen. The removed contamination falls out of the lower, open end of the filter element.

VERSATILE, ROBUST AND EASY TO MAINTAIN

Two different frequencies are available, one for a primary cleaning (25 kHz) and one for a gentle fine cleaning (45 kHz). A programmable sweep function uses permanent acoustic modulation to ensure even distribution of energy to deliver consistent cleaning results.

Due to its construction and functionality the filter element cleaning unit can be used under various operating conditions, is easily maintained and because of its robust stainless steel structure it withstands even intensive usage.

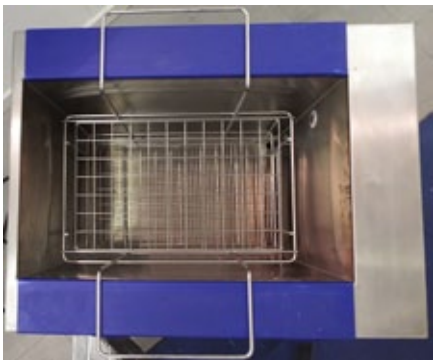
REDUCE COSTS, SAVE THE ENVIRONMENT

The unit is designed to facilitate stable fastening on board ship, even in rough sea. The bevelled tank bottom allows for quick and complete draining of the spent fluid. The entire control unit is placed in a compact module. For reasons of maintenance it can be replaced quickly and without special knowledge.

28 Cleaning Unit BOLL Ultrasonic TYPE 5.05



Modern BOLLFILTER 5.05 Unit with many updated features for 2016

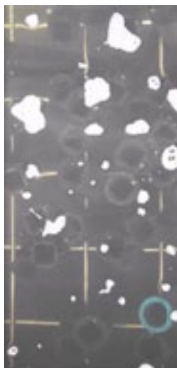


Above left Heating goes on
Right Ultrasonic then goes on



Left
Dirty
Candle

Right
Cleaning
in action





Candles from BOLL 6.46 Lube Oil Filter encrusted with Oil sludge before cleaning



Candles after 8 hours cleaning, the Oil sludge has now gone

BOLLFILTER UK Filter Candle Guide

Request a call from one of our team

spares3@bollfilter.co.uk



BOLLFILTER
Protection Systems

BOLLFILTER UK Limited

Unit 9 Station Way, Station Road

Tolleshunt D'arcy, Essex CM9 8TY

Tel: (01621) 862180

Fax: (01621) 869257

E-mail: spares3@bollfilter.co.uk

Website: www.bollfilter.co.uk

Great filters by great people. Great people buy great filters